G1 CH<sub>2</sub>,CH,A,C,N,O,S,P,Si

Structure attributes must be viewed using STN Express query preparation.

```
=> s 11
SAMPLE SEARCH INITIATED 10:53:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 221 TO ITERATE

100.0% PROCESSED 221 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 3529 TO 5311
PROJECTED ANSWERS: 1 TO 80
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L2 1 SEA SSS SAM L1

```
=> s 11 sss full
FULL SEARCH INITIATED 10:53:39 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 4381 TO ITERATE

100.0% PROCESSED 4381 ITERATIONS 26 ANSWERS
SEARCH TIME: 00.00.01
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L3 26 SEA SSS FUL L1

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	185.88	186.10

FILE 'CAPLUS' ENTERED AT 10:53:44 ON 17 JUN 2009  
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FILE COVERS 1907 - 17 Jun 2009 VOL 150 ISS 25  
FILE LAST UPDATED: 15 Jun 2009 (20090615/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

Cplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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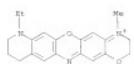
```
=> s 13
L4          7 L3

=> d ibib abs hitstr tot
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14 ANSWER 3 OF 7 CARLOS COPYRIGHT 2009 ACS ON STN (Continued)  
 CHI C20 R12 M1 G2



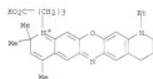
CH 2

CHI 145874-70-5  
CHI 374  
CII CCC

$\text{F}^-$   
 $\text{---}^{\text{Et}}\text{---}$   
 $\text{---}^{\text{Et}}\text{---}\text{F}^-$

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

14 ANSWER 4 OF 7 CARLOS COPYRIGHT 2009 ACS ON STN (Continued)  
 CHI 185213-69-5 CARLOS  
 CHI 1-(3-carboxypropyl)-11-ethyl-8,9,10,11-tetrahydro-2,2,4-trimethyl- (CA INDEX NUMBER)



REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

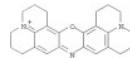
14 ANSWER 4 OF 7 CARLOS COPYRIGHT 2009 ACS ON STN (Continued)  
 ACCESSION NUMBER: 2001-555373 CARLOS  
 DOCUMENT NUMBER: 1351295428  
 TITLE: Spectroscopic Uptake of Single Molecules Studied by Spectrally-Resolved Fluorescence Lifetime Imaging Microscopy (SFLIM)  
 AUTHOR(S): Klemm, Stephan; Beutler, Burk-Walter; Escher, Markus  
 CORPORATE SOURCE: Physikalisch-Chemisches Institut, Universität Heidelberg, Heidelberg, 69120, Germany  
 SOURCE: Journal of Physical Chemistry A (JPCA), 102(19), 7999-8002  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ABSTRACT: A new scanning technique for simultaneous recording of intensity, fluorescence lifetime, and spectral information with single-molecule resolution is presented. The technique is compared of single carmine (LX4242), rhodamine (G739), and carbocyanine (C55) dyes adsorbed on glass surfaces under air-equilibrated conditions. The method is able to record spectra of single molecules in inhomogeneous samples and mixtures. To obtain a more detailed insight into the underlying fluorescence dynamics of single mole, the fluorescence decay was measured with a time resolution of 100 ps for each excitation point containing isolated mole, in the laser focus. Two detectors with 2 PC plus-in cards record the fluorescence signal simultaneously to monitor fluorescence intensity, lifetime, and spectral information simultaneously with single-mole sensitivity and microseconds time-resolution.  
 Discrete jumps in fluorescence intensity from single mole, which lacked spectral diffusion, and changes in radiative lifetime were observed with correlation times of about 100 ns. The decay rate of the intensity was determined from 2000 scans for the rhodamine derivative up to several seconds for the carmine dye and amplitude. For the carbocyanine derivative C55, fast spectral fluctuations to red shifted dim-states which appear partly as off-states with a lifetime in the millisecond range were determined. These dim-states exhibit the same radiative decay rate of approx. 2 ns as the most intense state. Due to the fact that the correlation time is longer than the radiative decay time and spectral fluctuations is not necessarily given in each of the 3 chromophores. Both parameters seem to be independent characteristic of each individual mol. About 5-15% of all mols independent of their structure, field, and environment exhibit emission spectra but strong fluctuations in fluorescence lifetime directly correlates to the intensity. A combined anal. of emission spectra, lifetime, and fluorescence decay rates allows for the classification and quantification of the underlying photophysical dynamics. IT 185213-69-5, 2B-Dipyrro[5,5-bz<sup>2</sup>,5'-phenoxyazocin], 1,11-ethano-, 11-ethyl-, 8,9,10,11-tetrahydro-2,2,4-trimethyl- Et NCA (Modifier or additive used); PED (Physical, engineering or chemical processes); PRP (Properties); PHOC (Properties); URMS (Uses) (Fluorescence lifetime imaging microscopy of single mol. of)

14 ANSWER 5 OF 7 CARLOS COPYRIGHT 2009 ACS ON STN (Continued)  
 ACCESSION NUMBER: 1999-217940 CARLOS  
 DOCUMENT NUMBER: 1351295430  
 TITLE: Preparation and characterization of bridged naphthaliminium salts  
 AUTHOR(S): Hahn, Stephan; Escher, Markus  
 CORPORATE SOURCE: Fachbereich Chemie, Fachhochschule Merseburg, Merseburg, D-04121, Germany  
 SOURCE: Journal of Organic Chemistry (JOC), 64(2), 923-930  
 PUBLISHER: Wiley-VCH Verlag GmbH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 130/29654  
 ABSTRACT: Various bridged naphthaliminium perchlorates were prepared by condensation of bridged 4-(aryloxy)-3-hydroxyanilines and bridged or unbridged 4-(aryloxy)-1-naphthylamines with bridged 1-naphthylamines and 4-(aryloxy)-1-naphthylamines. The structures of the products and the physical properties of the products were compared with those of bridged phenoxazinium salt as well as with data for some unbridged analogs.

IT 222468-10-81  
 Et NCA (Biological activity or effector, except adverse); EDU (Established drug); EXP (Experimental product); EXP (Experimental study, unclassified); SRB (Synthetic preparation); BIOC (Biological study); PRPC (Preparation); PREC (Preparation)  
 ABSTRACT: Preparation and UV absorption and fluorescence of bridged naphthaliminium salts

CHI 222468-10-81 CARLOS  
 CHI 1M,5H,11H,15H-Diquinolinizino[1,9-bc1',9'-hphenoxazin-4-iun,2,j,2',6,7,12,13,14,17-octahydro- perchlorate (NCI) (CA INDEX NO.)

CH 1

CHI 145875-95-2  
 CHI C24 R12 M3 G3

CH 2

CHI 147977-73-0  
 CHI C1 04

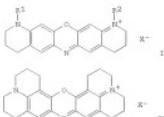


14. ANSWER 6 OF 7. CANVAS. COPYRIGHT 2020. ACS OR STM. (Cont'd.)

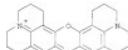
$$\begin{array}{c} \overline{\Gamma^+} \\ \downarrow \\ \Gamma^- \end{array}$$

14. APPLIED 7 OF 7 CARLOS COFREY/2003 ACS ON STN  
APPLICATION NUMBER: 199312022 CAPUS  
DOCUMENT NUMBER: 11819052  
MAILING ADDRESS NO. 1: 11819052, 15475a  
TITLE: Coarse laser dyes  
INVENTOR(S): Bawden, Peter F.; Field, George  
PATENT ASSIGNEE(S): United States Dept. of Energy, USA  
SOURCES: U.S. - 8 pp.  
CROSS-REF: 653400  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
APPLN. ACC. NO.: 1  
PATENT NUMBER: 7027384  
PATENT DATE: 2006-04-11

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5149897	A	19920922	US 1991-761559	19910911
PRIORITY APPLN. INFO.:			US 1991-761559	19910911
OTHER SOURCE(S):	MARPAT	118:90362		



14 ANSWER 7 OF 7 CAPS-033 COPYRIGHT 2003 AGS ON SITE (Continued)



20

C322 14874-70-5  
C367 B T4  
C37 CCE

$$-\frac{1}{2} \leq \beta \leq \frac{1}{2}$$

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT